

How to Have a Winning Tennis Court

by Diana Lomont

To maintain a tennis court is to manage an investment. A tennis court today costs about \$40,000 to build from scratch. It can cost \$60,000 to remove a severely damaged court and replace it with a new one.

Some people may think all a tennis court needs is an occasional sweeping. But there are many culprits that can silently turn a court into a problem surface.

One is algae. Standing birdbaths, or puddles, are invitations for algae growth.

Every court has birdbaths to some degree. The ones to be concerned about, say court surfacing companies, are those that cover the depth of a nickel after standing for 20 to 30 minutes. They either should be squeegeed off immediately after a rain, or filled with the appropriate surfacing material and leveled off.

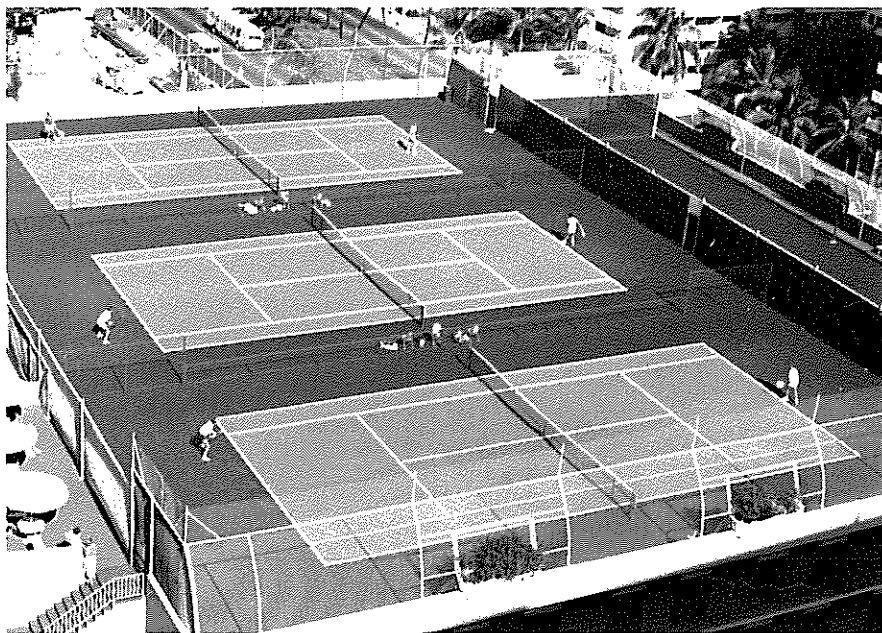
"What happens when the water stands," explained John Barnett, president of All Court Hawaii Inc., "is you've got algae build-up, but you've also got potential damage to the acrylic because the acrylic might start softening."

Other fiends of nature that can cause staining are bird droppings, slugs, tree sap and leaves. Matt Lanin, president of Specialty Surfacing Co., explained that "a lot of those things, when they do decompose, they have acids in their body that can cause blisters."

To protect a court from such potential hazards, Lanin recommends that a court be cleaned ideally every week with a "waterbroom" to remove algae, dirt and debris that can wear the surface prematurely.

Courts that are used often should be swept daily with a soft-bristled broom or a power blower.

Bill Bartlett, tennis instructor at the Ilikai Hotel, said he eyes the five tennis courts there in the morning and even-



The Ilikai Hotel's three Marina courts atop a parking deck were resurfaced last year with a slipsheet system.

ing to see if they need any sweeping or cleaning. And they are hosed down weekly to remove dust and debris.

When it comes to drying the court with sponge rollers, Bartlett recommends the circular method, by which one person can dry a court in about 10 minutes. This technique, used at the U.S. Open, is done by starting at the center of the court and pushing the water outwards in a spiraling motion until the water is pushed off the court.

What Causes Cracks?

Cracks are virtually inevitable on any concrete or asphalt surface. About 95 percent of Hawaii's courts are hard courts, the majority of those asphalt.

The most serious cracks are those caused by substrate conditions. Emil Offer, president of Pacific Tennis Courts Ltd., says at least half of the courts in Hawaii were improperly designed in the first place, leading to deep structural cracking.

A poor design could mean an improper asphaltic mix, or an unlevel, unstable structural base. Or it could mean an inadequate drainage system.

All courts should have a 1-in in 10-ft slope so water drains off the lower end.

However, some courts may need more than the proper slope. A court adjacent to a hill requires a peripheral drainage system. Water that runs down the hill must be diverted to prevent it from drowning one end of the court during a rain. Lanin explained how excessive water can eventually cause structural cracks:

"Once you get the water underneath the court, the dirt that was compacted hard before gets mushy, and when that gets mushy the rock shifts with it. When the rock shifts, the asphalt shifts, then eventually you get a crack.

"So the crack starts from the bottom and works its way up. And then once the crack actually appears on the surface, water from the top can get in the crack and go right on through into the base, so it just gets worse. You get water attacking it from the bottom and the top."

Another unsuspecting factor that can cause substrate cracking is hedges planted too closely around a court.

While maintenance personnel like Shultis may have the knowledge to take sufficient care of a pool, many hotels don't maintain their pools properly, according to both Kilgore and Staszko.

"They're usually the ones that are spending more money correcting problems rather than preventing them," said Staszko.

Kilgore recommends that hotel managers call a qualified pool company to provide training seminars for employees. In working with managing agents, Kilgore trains new resident managers and sometimes services the pool for a month or two until maintenance personnel can handle the basics of pool maintenance on their own.

Automatic Equipment

For those who are willing to pay for convenience, more automatic equipment is being manufactured today. These include automatic chemical readers and pool vacuums.

Staszko is most impressed by the Lectranator, a manufacturer's name for a device that produces chlorine from salt and pool water. The water passes through an electrolytic cell, is turned into chlorine, and eventually reverts back to salt which is reused in the process. The system may also be set to maintain a constant level of chlorine.

The device saves time and hassle from handling chlorine, and is a safety bonus. But Staszko said manual readings must still be taken of pools with automatic chemical readers or chlorine generators.

Kilgore and Staszko agree that automatic equipment should only serve as a supplement to manual pool care.

"It's no better than the person operating it," said Kilgore. "And if the person who's operating it knows that much about it, it would be much cheaper to do it by hand."

One final point that pool maintenance people agree on is the uniqueness of every pool. Shultis said the two pools at the Ilikai behave very differently in reacting to the same dosages of chemicals.

"Every pool is unique," he said. "It just takes a while to get a feel for the pool." □

Maintaining Spas

Spas, or jacuzzis, use the same chemicals as pools, but because of their compactness require careful monitoring.

"It's a smaller body of water that's going to take twice as much effort," said Brian Staszko, of All Pool & Spa.

Jan Kilgore, of Diamond Head Chemical Co., says spas in commercial projects are becoming less popular because "they're a maintenance headache."

As with pools, spas are required by law to have chlorinators, and to be running 24 hours a day to achieve maximum filtration and circulation. Readings of pH and chlorine levels must also be taken three times daily.

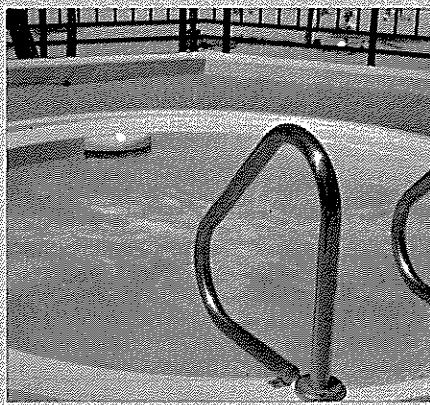
Staszko stresses the need for adequate chlorination in spas. For frequently used spas, he recommends backwashing them daily.

Spa heaters come in thousands of different products, said Staszko. The three basic kinds are gas

heaters, electric heaters and heat pumps.

For performance, gas heaters are the fastest working but are most expensive. Electric heaters are usually for portable use.

Heat pumps are supposedly more energy efficient, but must remain on constantly with no independent controls. However, heat pumps apparently are gaining in popularity as many new products are on the market.



A spa is twice the trouble to maintain as a pool.

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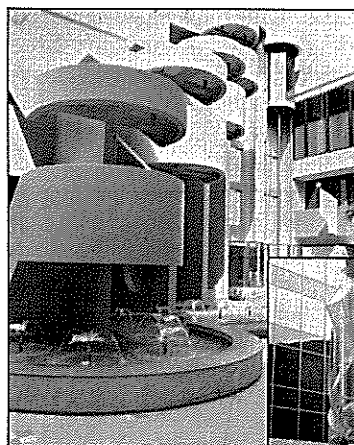
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"That's a common problem because it looks pretty but it destroys the court," said Lanin. If the hedges' roots grow underneath the court, they can lift up the substrate. If allowed to continue, they could cause such serious swelling and cracking that the whole court would have to be stripped and repaved.

For those who really want some greenery around the court, concrete can be poured in underneath the plants to form a root-blocking wall.

Cracks also tend to develop along tennis court lines because of the different temperature reactions experienced by the white paint and green surface. Another problem area is where posts are inserted into the concrete. Water can seep in and cause upheaval cracking.

Because concrete and asphalt naturally expand and contract from temperature changes, a properly constructed court should have a curb built around it to contain the asphalt better.

Filling Cracks

A court can be repaired several ways depending on the extent of damage. The least expensive way is the "band-aid" approach. Cracks are filled, and the surface is touched up to match the court's color.

What is the best kind of crack filler? That's a question no tennis court expert can answer because there is yet no perfect crack-filling material.

"To date there is no crack filler made that any manufacturer will guarantee," said Lanin.

Specialty Surfacing uses 10 different kinds of crack fillers, depending on the type of crack. "Sometimes we use two or three different types for one crack," explained Lanin. "We'll fill the bottom half with one type, the middle with another, and the top with another type."

Crack fillers range from epoxies, elastomeric and rubberized asphalt emulsions to acrylic latex caulking compounds and mixtures of hydraulic cement and asphalt.

The challenge, said Lanin, is to find the filler that is flexible enough to expand with the crack, but stiff enough so it won't bunch up or sag when the crack contracts.

"If you get one that will actually do both things, when you put the surface on top of it, a lot of times the surface won't stick to it," he added. "You'll

twist your foot, and it'll twist the surface off it."

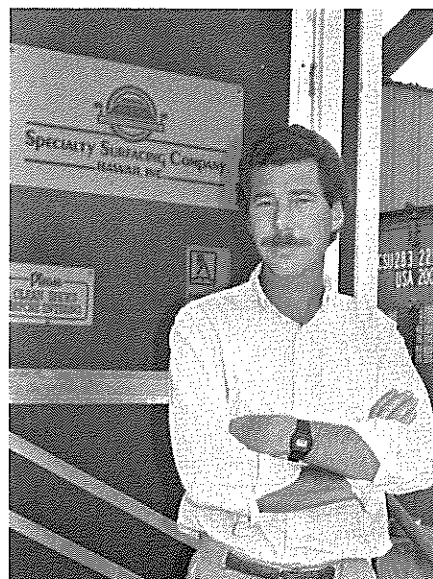
Resurfacing

Most tennis courts need to be resurfaced every three to five years depending on the amount of rain and play the court receives.

The standard resurfacing consists of two inches of asphalt containing silica sand, covered with several layers of acrylic emulsion and two to three coats of color. The amount of sand mixed in the asphalt determines the "speed" of the court. The more sand mixed in, the more grip the surface will have, and the slower the court will be.

The Ilikai's Bartlett said he prefers to have a court resurfaced at slow/medium so it will last longer. As the acrylic surface wears, it loses its grit and becomes slicker. In one or two years, a slow court will become medium, and a medium court will become fast.

When Specialty Surfacing resurfaced the Mauna Lani Bay Hotel on Maui last year, it made two courts fast, two very slow, and six of medium

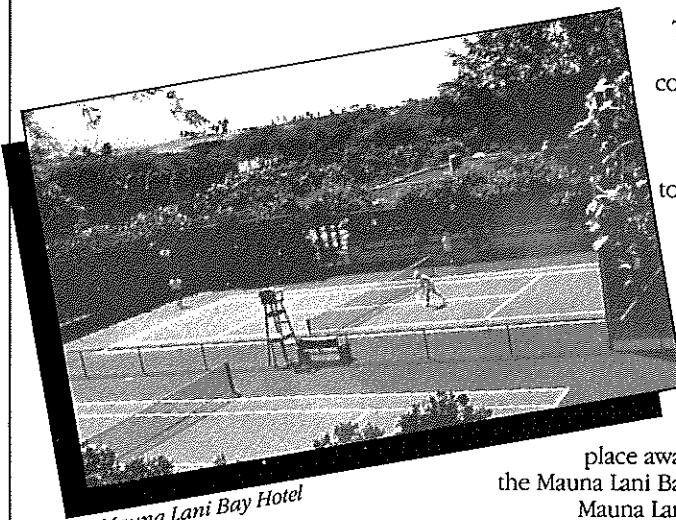


Matt Lanin, president of Specialty Surfacing Co.: A court must have proper drainage to avoid deep structural cracks.

speed. Each court cost about \$3,500 to resurface.

The courts were surfaced with the Plexipave brand of acrylic emulsion, which Lanin says is superior to other

Grand Slam!



Mauna Lani Bay Hotel

The votes are in, and the count is complete. TENNIS INDUSTRY Magazine has announced the top three national finishers in the close race for the 1988 Court-of-the-Year Awards. Specialty Surfacing has won both

first and second place awards for work on the Mauna Lani Bay Hotel and the Mauna Lani Racquet Club.

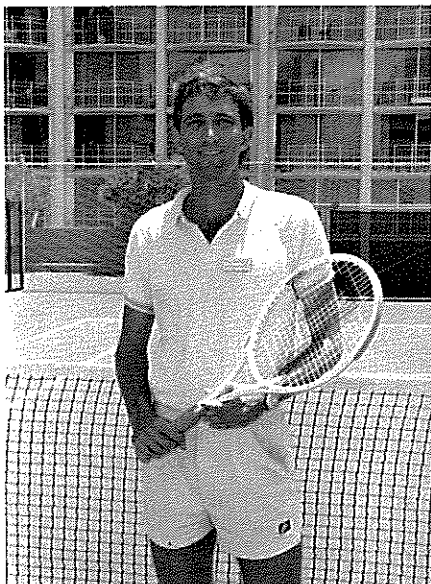
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Bill Bartlett, tennis instructor at the Ilikai, keeps a close eye on the hotel's five courts, checking them for debris in the morning and afternoon.

types because it is 100 percent acrylic. Other types, he said, may contain up to 30 percent polyvinyl chloride (pvc) fillers, which are cheaper than acrylic.

"When the courts are brand new, they look the same," said Lanin. "But by adding that pvc to it, the courts fade out faster and they wear out faster."

Badly cracked courts may require something more than a basic asphalt and emulsion overlay. Several systems exist to prevent the cracks from reflecting through the new surface.

The state and counties have been using the Petromat system for their severely cracked courts. It consists of a fiberglass fabric that is laid between the existing asphalt and new asphalt. It costs about \$15,000.

Lanin thinks a more effective system for problem courts is the slipsheet, a ½-in divorced nylon membrane that is bonded only around the perimeter of the existing asphalt. That way, cracks can move but will not affect the new surface.

The slipsheet is covered with another ½ in of asphalt emulsion mixed with aggregate and sand.

"The reason we use that thickness is that's the weight it takes to hold down the slipsheet, those membranes," explained Lanin.

The Ilikai's three Marina courts were "slipsheeted" less than a year ago. Located atop a parking deck, they previously had a Mateflex surface structure, which consists of waffle-like plastic squares that link together like Lego pieces. Although it provided good drainage, it had more pitfalls, wearing into a bumpy surface that could be broken apart if someone stepped on it at a certain angle.

Bartlett says he's happy with the slipsheeted courts. "It was very expensive [\$25,000 per court] but it's worth it because they level your court off. You'll get a court that people enjoy playing on, which is the whole point of having a tennis court."

Barnett, of All Court Surfacing, however, is somewhat leary of the slipsheet system. "If water gets underneath it, you've got leaks."

Another type of surfacing system that is gaining popularity is astroturf-like material, such as Deco-Turf, Super-Grasse or Omnicourt. They're more expensive than typical asphaltic surfaces but are also said to be more durable and crack-proof, plus cushioned for easier play on the legs.



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Specialty Surfacing resurfaced five badly cracked courts at Pearl Harbor with the Omnicourt system less than two years ago. The Omnicourt system costs about \$25,000 per court.

Plexicushion and Deco Turf II are two asphaltic systems that contain rubber to resist cracks and absorb impact better. The Hyatt Regency Waikoloa recently had six of its courts resurfaced with the Plexicushion system. The Plexicushion runs \$1,500 per coat plus \$5,000 for the subsurfacing, amounting to \$9,500 for a standard three-coat surface.

Then there are always synthetic clay courts, which are nice to play on because of their texture that allows sliding. A clay court costs about \$22,000 and requires a built-in sprinkler to maintain the proper moisture balance.

Whatever you may plan to do to your court in the future, remember that a tennis court is a recreational facility that requires regular care to stay in top shape.

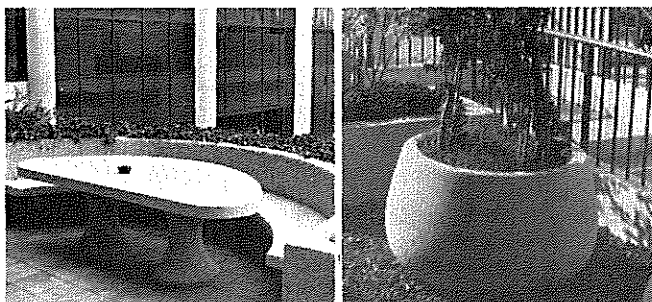
"The smart property management company will plan for their tennis courts to maintain them," said Barnett. "It's an expensive investment that they need to protect for their homeowners. The smart guys do preventive maintenance. And they end up paying less money." □



John Barnett, president of All Court Surfacing Inc.: Managers should budget for tennis court maintenance.

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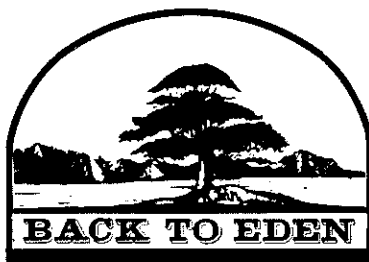


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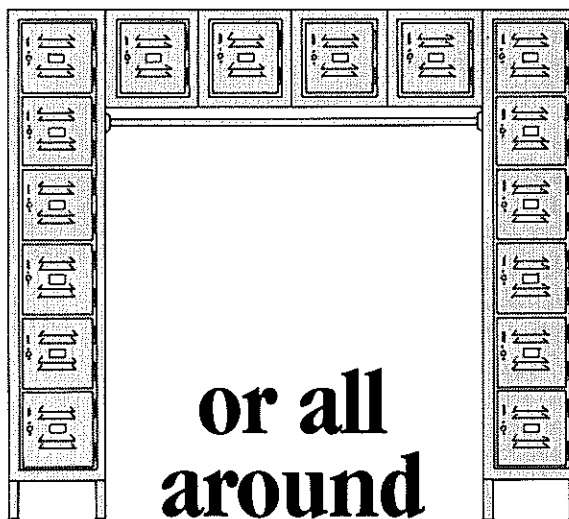
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